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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,537	07/06/2001	Hiroyuki Miyahara	21994/0025	3396

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Connolly Bove Lodge & Hutz LLP  
Suite 800  
1990 M Street, N.W.  
Washington, DC 20036-3425

EXAMINER

DANIELS, ANTHONY J

ART UNIT PAPER NUMBER

2615

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/899,537

Applicant(s)

MIYAHARA, HIROYUKI

Examiner

Anthony J. Daniels

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. The amendments, filed 2/2/2005, have been entered and made of record. Claims 1-4 are pending.

***Response to Arguments***

2. Applicant's arguments filed 2/2/2005 have been fully considered but they are not persuasive. The amended claims are rejected in view of the same references as cited in the previous office action. Applicant's arguments are addressed in the context of the rejected claims.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

3. Claims 1,2 stand rejected under 35 U.S.C. 102(b) as being anticipated by Parulski et al. (US # 5,440,343) in view of the amendment and accompanying arguments addressed below.

As to claim 1, Parulski et al. teaches an image sensing apparatus which outputs electric charges being stored in a plurality of photoelectric converting elements disposed horizontally and vertically in a matrix as an electric signal (see Figure 4; Col. 2, Lines 10-14), said image sensing apparatus comprising: a plurality of vertical transmitting CCDs (see Figure 4, Reference Number "44") for transmitting electric charges read out from said plurality of photoelectric converting elements in a vertical direction, a horizontal transmitting CCD (see Figure 4, Reference Number "42") for transmitting the electric charges transmitted from said plurality of vertically

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transmitting CCDs in a horizontal direction and for outputting the electric charges through an outputting section (see Figure 4, Reference number "42", *{Note the arrows pointing out of the horizontal register; meaning, since charges are being locked out of the horizontal register, there is an outputting section inherent in the register.}*), and an intercepting section (Figure 9, Reference Number "46' ") for intercepting all electric charges (Figure 9, see Col. 7, Lines 25-36; 256 pixels are not received by the horizontal register "48") being transmitted from a whole area (Figure 9; Col. 25-36; *{The whole area denoted by 2556 pixels is the whole area.}*) in a matrix of a plurality of photoelectric converting elements in a horizontal direction and a plurality of photoelectric converting elements in the vertical direction (Figure 9, Col. 7, Lines 25-36; *{The charge clearing structures are an area that intercepts the charges disallowing them to be received by the horizontal register "48".}*), wherein the area is a part of an image sensing are disposed on a far side from said outputting section of said horizontal transmitting CCD (Figure 9, charge clearing structures "46' "; *{As can be seen, the charge clearing structures are disposed on a far side from said horizontal transmitting CCD.}*); wherein a picture signal obtained from a first area is outputted with being intercepted by said intercepting section in a first picture taking mode (see Figure 9, 1280 pixel section; Col. 7, Lines 12-46), and another picture signal obtained from a second area being wider in a horizontal direction (see Figure 9, 1536 pixel area) than said first area is outputted without being intercepted by said intercepting section in a second picture taking mode (see Col. 5, Lines 22-31; *In the still picture taking mode, different from the NTSC readout mode, the charge clearing structures 46 are also disabled in the second embodiment of the invention.*).

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As to claim 2, Parulski et al. teaches an image sensing apparatus in accordance with claim 1, wherein said first picture taking mode is a motion picture taking mode (see Col. 7, Lines 43-46) for taking a motion picture signal and said second picture taking mode is a still picture taking mode (see Col. 5, Lines 22-25) for taking a still picture signal, wherein a transmission rate of electric charge of said horizontal transmitting CCD is set to a same rate in said motion picture taking mode and in said still picture taking mode (see Col. 7, Lines 25-36; *If there is insufficient time to process 256 pixels, this means that the same clock frequency is being used to clock the charges out, horizontally. Referring to Figure 9, hypothetically speaking, if the clock frequency of the HCCD (horizontal register) is 4 pixels per second, it would take 320 seconds to clock the entire frame of 1280 pixels out in the NTSC readout mode. In 320 seconds, at a rate of 4 pixels per second, only 1280 pixels of the 1536 pixel frame would be clocked out in the still picture mode leaving 256 pixels left in the horizontal register; thus, showing that since there is not enough time process the 256 pixels, the clock frequency, i.e. transmission rate, of the horizontal register is the same for both modes.*)

***Claim Rejections - 35 USC § 103***

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (see Patent Number above) in view of Oda (US #5,528,291).

As to claim 3, Parulski et al. teaches an image sensing apparatus in accordance with claim 1, wherein said first picture taking mode is a motion picture taking mode (see Col. 7, Lines 43-46) for taking a motion picture signal, and wherein a transmission rate of electric charge of said horizontal transmitting CCD is set to a same rate in said motion picture taking mode and in a

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high definition motion picture taking mode (to be described next; *see explanation in italics in claim 2*). The claim differs from Parulski et al. in that a second picture taking mode is required which is a high definition motion picture taking mode of which a number of pixels per one frame is larger than that of said motion picture signal.

In the same field of endeavor, Oda teaches a method for producing high motion resolution images (see Col. 5, Lines 13-17). These high definition motion images are outputted from the cameras with 525 scanning lines, approximately the amount in NTSC signals, which are the motion signals taught above by Parulski et al. and contain on the order of 400,000 pixels (see Oda, Col. 1, Lines 24-27; see Parulski et al., Col. 2, Lines 1-9), *{NTSC resolution signals can be taken in motion or still format, such signals are considered to be medium resolution images.}*). Parulski et al. teaches how HDTV motion signals, signals taught by Oda, have to be downconverted to obtain NTSC motion signals (see Parulski et al., Col. 1, Lines 45-54); thus, showing that the high resolution motion picture signals have a larger number of pixels than those taught by Parulski et al. (NTSC motion signals). In light of the teaching of Oda, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a modification where high definition motion pictures could be taken using the motion still electronic image sensing apparatus of Parulski et al. while providing a low power loss (see Oda, Col. 5, Lines 14-16). *Also, note that the horizontal transmission rate would be same because the number of pixels transferred would be on the same order of the number of pixels transferred in the still picture taking mode taught by Parulski et al.*

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5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (see Patent Number above) in view of Kawaoka et al. (US #5,251,036).

As to claim 4, Parulski et al. teaches an image sensing apparatus in accordance to claim 1 wherein a transmission rate of electric charge of said horizontal transmitting CCD is set to a same rate in said first still picture taking mode and in said second still picture taking mode (to be described next; *see explanation in italics in claim 2*). The claim differs from Parulski et al. in that a first mode is a still picture taking mode for taking a still picture signal and a second mode is a high definition still picture taking mode for taking a high definition still picture signal composed of a larger number of pixels in comparison to said still picture signal.

In the same field of endeavor, Kawaoka et al. teaches a high definition still picture camera that reads charges outputted from a CCD, capable of forming high resolution images and low resolution images (see Abstract, Lines 1-3, 28-32; Col. 1, Lines 65-68, Col. 2, Lines 1-5). The number of pixels in the high resolution images being greater than the low resolution images is taught in Kawaoka et al (see Col. 1 Lines 30-34). In light of the teaching from Kawaoka et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the camera taught in Parulski et al. by outputting both high and low resolution still images, wherein the number of pixels in the high definition still picture taking mode is larger in comparison to the still picture taking mode. Such a modification would increase the versatility of the apparatus and subsequently the desirability. It is noted that the extra pixels would be processed using auxiliary HCCDs, taught by Parulski et al. (see Figure 9, Reference Number "49"; Col. 7, Lines 37-46) without increasing the transmission rate of the horizontal transmitting CCD.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

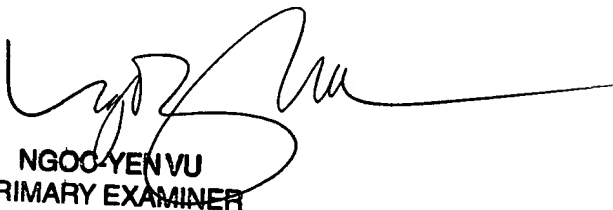
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Daniels whose telephone number is (571) 272-7362. The examiner can normally be reached on 8:00 A.M. - 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AD  
4/15/2005



NGOC-YEN VU  
PRIMARY EXAMINER